Burkina Faso: Logistics BAM (PLT), Phases I - III

Ex post evaluation report

OECD sector	31130/Agricultural land resources	
BMZ project IDs	1) 1993 65 990 (Phase I) 2) 2000 66 365 (Phase II) 3) 2001 65 415 (Phase III)	
Project executing agency	PATECORE, on behalf of the Ministère des Finances et du Budget	
Consultant	Gauff Ingenieure	
Year of ex post evaluation report	**2008**	
	Project appraisal (planned)	**Ex post evaluation (actual)**
Start of implementation	Q 4 1994	Q 4 1994
Period of implementation	122 months	144 months
Investment costs	1) EUR 4.75 million 2) EUR 1.02 million 3) EUR 3.22 million	1) EUR 4.56 million 2) EUR 1.46 million 3) EUR 5.42 million
Counterpart contribution		EUR 0.76 million
Financing, of which Financial Cooperation (FC) funds	1) EUR 4.75 million 2) EUR 1.02 million 3) EUR 3.22 million	1) EUR 4.75 million 2) EUR 1.02 million 3) EUR 5.42 million
Other institutions/donors involved	GTZ	GTZ, DED (2001-2006)
Performance rating	2	
• Relevance	1	
• Effectiveness	2	
• Efficiency	3	
• Overarching developmental impact	2	
• Sustainability	3	

Brief description, overall objective and project objectives with indicators

From 1988 to 2006, the FC/TC cooperation project PATECORE/PLT was implemented on the central plateau of Burkina Faso with the aim of halting the continuous degradation of natural resources and stabilise self-sufficiency in food for the population. Priority was attached to a) soil and water conservation measures (stone contour walls) and b) intensification of agriculture. FC provided the logistics for stone transport and TC the technical advice for the participatory approach, its implementation and for training. PATECORE/PLT was implemented by the Ministry of Agriculture, Hydraulics and Fishery Resources (MAHRH) and its provincial offices. During the implementation of the measures, separate sets of objectives were defined for the different phases of the TC and FC components. By today's standards, the joint FC/TC evaluation team considers the following common set of objectives to be appropriate as a basis for assessing the overall project:

Overall objective: Basic food security for the rural population in the project area has been stabilised.

The overall objective indicator in the project area has been defined as the degree of grain self-sufficiency of the rural population in the project target area.

Project objective: Using appropriate measures in sustainable natural resource management, farmers produce higher yields (grain production on rehabilitated land).

The indicators are additional yields per hectare and the number of farmers who apply the knowledge acquired.

Project design/major deviations from original planning and main causes

The FC measures consisted in organising and executing stone transport for the construction of soil and water conservation structures (stone walls of different heights of up to 1.5 m). Transport was carried out every year in campaigns lasting about 5 months each. In the peak periods, up to 60 trucks and as many as 10,000 people from the project region were deployed on a daily basis.

The main TC contribution to the project was to develop an appropriate technology and scheme to deal with the core problem in the region, namely progressive desertification and provide the requisite advice and support for planning its extensive implementation. A multilevel training programme was devised to train more than 2,000 extension workers. Through participatory planning with priority attached to degraded erosion-prone land with a high value added potential, support for organising the population at village and intervillage level and the provision of the necessary lorry haulage capacity by the FC component, beneficial effects were achieved in a relatively short time. Additional TC extension measures to complement the soil and water conservation measures imparted methods for maintaining and increasing soil fertility, promoted comprehensive, intervillage land use planning at selected locations and supported tree nurseries for planting and farming rehabilitated land.

From 2001 to 2006, DED experts provided support in improving cropping techniques, introducing composting and drafting an instruction manual.

PATECORE was organised as an autonomous unit directly answerable to the Ministry of Agriculture and via different operating units was in charge of implementation, technical advice and monitoring for soil and water conservation and soil amelioration measures. The PATECORE personnel consisted of seconded experts from GTZ, which also provided the team leader of the project, and DED as well as officials assigned by the Ministry (8 persons and project manager) and donor-financed national experts.

Key results of impact analysis and performance rating

The project results fully meet the set of project objectives defined at appraisal and those revised for the purposes of the ex post evaluation. During the project term, approx. 72,600 - 98,000 hectares of land were rehabilitated, depending on which estimate is applied. This corresponds to approx. 40% - 50% of the available arable land in the intervention zone (Bam, Kourwéogo and Oubritenga Provinces).

The FC-financed stone contour walls prepared the way (erosion prevention) to enable the TC-assisted training contents, soil amelioration and agricultural intensification to be implemented and take effect. The combination of the TC and FC measures contributed to estimated higher average grain harvest yields of approx. 38% on the rehabilitated land.

The project had a direct bearing on poverty. It strengthened the ability of the rural population to alleviate its food deficits. Moreover, it was geared to environmental protection and resource conservation; no adverse environmental impacts are expected. The project afforded scope for

contributing to gender equality. It was not concerned with participatory development/good governance.

Overall, we assess the developmental efficacy of the project as follows:

Relevance

The methodological approach and the project outputs as well as the objectives achieved met the needs of the target groups in the intervention area and were aligned with the priority development goals of Burkina Faso at national and sectoral level.

This project objective defined during implementation - the stabilisation of basic food supply for the rural population through appropriate natural resource management - still conforms with the current frame of reference at national level, the Cadre Stratégique de Lutte contre la Pauvreté (CSLP 2003) and the related sectoral strategy for rural development (SDR 2004). The chosen instruments of German Development Cooperation complemented each other and fitted well into the strategies of the partner country and the BMZ.

We assess the relevance of the project as very good (rating 1).

Effectiveness

Project studies, external socio-economic analyses and findings of structured interviews conducted locally as part of evaluation all confirm substantial, ongoing increases in harvest yield through the rehabilitation of land and the application of measures to raise soil fertility. The actual annual increase per field varies enormously (4%-60%) due to multiple determinants: planted crops, soil quality and type of stone structure. Considering the poor soil and the climatic conditions, an estimated average increase of 38 per cent in yield can rate as very good.

Additional income from grain has partly been spent on purchasing other goods, such as spices, poultry or cattle. This contributes to stabilising self-sufficiency and diversifying foods. In addition, beneficial effects have also been ascertained on the groundwater level and the extensive regeneration of trees and shrubbery. More than 2,000 farmers in over 400 villages trained as agroformateurs/resource persons for soil and water conservation retain and impart this knowledge at local level.

Socio-economic impacts include reduced migration and/or easier reintegration of returnees from Côte d'Ivoire. As a result of the crisis in Côte d'Ivoire, approx. 500,000 Burkinian migrant workers have for the most part returned to their home villages on the central plateau since 1999. Most have been able to reassimilate without any great friction, partly because the rehabilitation of degraded arable land provided them with a livelihood.

We assess the efficiency of the project as good (rating 2).

Efficiency

Considering the FC measures (EUR 14.4 million), the TC measures would appear to be relatively costly (EUR 11.19 million). This cost ratio was, however, quite normal for similar cooperation projects in agriculture/natural resources over the last 20 years. Besides the long project term, the role of TC in the design and extensive implementation of the soil and water conservation measures at intermediary and target-group level was particularly important here.

The investment costs amounted to about EUR 150/hectare (including transport and the counterpart contribution, excluding consultancy costs of FC and without TC costs).

The ratio of consultancy costs for PLT was exceptionally high over the entire term of the project (30%-45% of total FC costs). One reason for this were the logistics services, which far exceeded the control and advisory tasks of a consultancy firm normally provided under FC. Nevertheless, more determined efforts could have been made to reduce consultancy costs, involving local experts more or the intermittent assignment of international experts, for example.

The macroeconomic efficiency of the project can only be roughly assessed, as due also to insufficient monitoring during implementation it is only possible to estimate the size of

rehabilitated land and its higher yields. During ex post evaluation, too, it was only possible to rely on estimates. This is also the case for calculating the target-group contribution and valuating the stone walls (investment), but in particular for ascertaining the shadow prices for labour as well. Assuming that the improved land areas will yield an additional output of 250 kg/hectare of sorghum for at least 25 years, a rough cost-benefit assessment amounts to a rate of return of over 10%. Only the labour input of the local inhabitants has been taken into account on the cost side; if the full FC consultancy costs were to be included, the figure would range between 3% and 4%, which still meets the minimum benchmark of 3% for LDCs.

These rough estimates do not take account of additional beneficial, microeconomic and macroeconomic results, such as the higher groundwater level, increased feed production, the regeneration of trees and shrubbery and the lower rate of external migration.

Altogether, we judge the efficiency of the project to be satisfactory (rating 3).

Overarching developmental impact

In the unanimous opinion of all respondents, the project has contributed to stabilising the food situation (overall objective). The current self-sufficiency rate (harvest year 2007/2008) in the poorest project province of Bam is still very low at 58%, but it needs to be borne in mind that the provincial population increased by 47% from the beginning of the project in 1988 to 2004.

During the mission, the target group voiced a continued need for the rehabilitation of arable land. Current potential land for expanding the implementation of soil and water conservation measures modelled on PATECORE/PLT is generally estimated at approximately 500,000 hectares for the central plateau. It would appear very difficult for the target group to continue with soil and water conservation measures on their own for lack of the requisite financial resources and intervillage management capacities.

Management and haulage capacities are needed at intervillage level for a broad implementation of the measures. Despite long-standing support for the Ministry of Agriculture through the project, however, there appears to be little interest and management capacity in the national institutions for organising the transport logistics. In an institutional sense, the project has had no capacity-building effects, although these were never explicitly envisaged in project design.

Altogether, we judge the overarching developmental impact of the project as good (rating 2).

Sustainability

The multilevel training programme (formation en cascade), which was integrated into the government extension service on the one hand and focused on the other on the rural population, their local resource persons and organisations, succeeded in achieving capacity development results. The abilities and competencies of the farmers to organise themselves, plan and develop their own solutions and pass on know-how, were improved through participatory planning methods and organisational development at local level. In the last project phases, local NGOs were also included in the advisory programme and the implementation of measures.

At the time of final inspection, 3 NGOs were continuing the measures in the project zone on a small scale. These activities are financed with external funding, but are largely based on the PATECORE/PLT approaches. In individual cases, interesting innovations have been introduced, such as pro rata participation of the target group in lorry haulage costs.

Considering the levels of competency achieved by the local population and the much higher harvest yield, we may assume that the ameliorated land is also protected and used for rainfed cropping, as the ongoing upkeep costs of the stone walls are low. As a rule, the facilities inspected were very well maintained. However, the one-off outlay of at least EUR 76/hectare just for transport is unaffordable for the farmers and the villagers will hardly be able continue the measures on their own.

The capacity-building effects of the project at national level were less sustainable. We see one reason for this in the lack of an exit strategy. As a result of the regional concentration of German Development Cooperation as of 2002 on the East and Southwest of the country and as part of its programme-based approach, GTZ already ended its contribution to the project in 2004. FC completed the project as planned in 2006. In view of the success of the project, the large demand for soil and water conservation measures and the total investment of over EUR 25 million, a consolidation phase or exit strategy agreed among all partners should have been carried out in 2002 at the latest to enable a gradual phasedown and transferral of the scheme to another donor-financed, government or private-sector arrangement.

At regional level, the methodological approach and the appropriate technology of integrated resource management developed in the project have performed a pilot function for development projects in the Sahel and in adjacent areas with similar desertification problems since the beginning of the nineties. The project took on a pilot function for regions with comparable agro-ecological conditions and thanks to its approach it is regarded as good climate-protection practice for appropriate integrated schemes in resource conservation. Measures modelled on PATECORE/PLT were proposed as part of the Green Wall for the Sahel Initiative (GWSI) under the partnership agreement on climate protection between the EU and AU at the Lisbon Summit in 2007, for example.

We attest the project under evaluation here satisfactory sustainability (rating 3).

In all, we assess the developmental efficacy of the project as good (**performance rating: 2**).

General conclusions and recommendations

Project planning

In addition to preparing a thorough baseline study in project planning, a decision should be taken just as early on the kind of comprehensive monitoring to be able to quantify the direct and indirect impacts of the measures, partly with a view to MDGs. TC/FC functions should also be properly allocated to prevent information gaps arising in monitoring.

In the view of the evaluation group, the one-sided designation as a resource conservation project confined attention too narrowly during planning and implementation and neglected the very beneficial project results in food security, social peace and poverty reduction.

Implementation

FC and TC should draw up a joint set of objectives, even if FC or TC gets engaged later. In this connection, we also recommend a regular review of the sets of objectives for internal coherence and relevance.

Project termination

Early termination of a project should be carefully appraised with all partners with a view to the repercussions. Where necessary, an orderly phasedown should be planned at reduced financial cost (consolidation phase). Generally, all stakeholders (BMZ, implementing organisations, partners) should already give thought to how to terminate the project at the beginning. In projects that are financed largely separately from government institutions, timely preparations should be made for their incorporation into public financial arrangements or alternative modes of finance.

Notes on the methods used to evaluate project success (project rating)

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness (outcome), "overarching developmental impact" and efficiency. The ratings are also used to arrive at a final assessment of a project's overall developmental efficacy. The scale is as follows:

1 Very good rating that clearly exceeds expectations

2 Good rating fully in line with expectations and without any significant shortcomings

3 Satisfactory rating – project falls short of expectations but the positive results dominate

4 Unsatisfactory rating – significantly below expectations, with negative results dominating despite discernible positive results

5 Clearly inadequate rating – despite some positive partial results the negative results clearly dominate

6 The project has no positive results or the situation has actually deteriorated

A rating of 1 to 3 is a positive assessment and indicates a successful project while a rating of 4 to 6 is a negative assessment and indicates a project which has no sufficiently positive results.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability)

The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected.)

Sustainability level 3 (satisfactory sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability)

The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and an improvement is very unlikely. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. A rating of 1 to 3 indicates a "successful" project while a rating of 4 to 6 indicates an "unsuccessful" project. In using (with a project-specific weighting) the five key factors to form a overall rating, it should be noted that a project can generally only be considered developmentally "successful" if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are considered at least "satisfactory" (rating 3).

List of abbreviations

AU	African Union
BMZ	German Federal Ministry for Economic Cooperation and Development
CILSS	Comité Permanent Inter-états de Lutte contre la Sécheresse
CSLP	Cadre Stratégique de Lutte contre la Pauvreté
DED	German Development Service
EU	European Union
FC	Financial Cooperation
GTZ	Gesellschaft für Technische Zusammenarbeit
GWSI	Green Wall for the Sahel Initiative
ha	hectare
ISCO	International Soil Conservation Organisation Conference
LDC	Least developed country
MAHRH	Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques
NGO	Non-governmental organisation
PAN-LCD	Plan d'action national de lutte contre la désertification
PATECORE	Projet d'Aménagement des Terroirs et Conservation des Eaux Ressources (TC component of project)
PNGT	Programme National de Gestion des Terroirs
PLT	Projet Logistique de Transport (Logistics Bam, FC component of project)
SDR	Stratégie du Développement Rural à l'Horizon 2015
TC	Technical Cooperation